CLAIMS

1. An optical recording medium comprising at least a reflective layer, a lower dielectrics layer, a recording layer, an upper dielectrics layer and a light transmissive layer that are sequentially laminated on one main surface of a substrate,

wherein light having a wavelength in the range of 400 nm or more and 410 nm or less is focused with an optical system having a numeral aperture in the range of 0.84 or more and 0.86 or less followed by irradiating from a side of the light transmissive layer on the recording layer, and thereby an information signal is recorded and reproduced,

wherein the lower dielectrics layer includes a first lower dielectrics layer and a second lower dielectrics layer that inhibits a material that constitutes the first lower dielectrics layer and a material that constitutes the reflective layer from reacting; and

the upper dielectrics layer includes a first upper dielectrics layer and a second upper dielectrics layer that inhibits a material that constitutes the first upper dielectrics layer and a material that constitutes the light transmissive layer from reacting.

2. The optical recording medium according to claim 1, wherein extinction coefficients k of materials that constitute the upper dielectrics layer and the lower

dielectrics layer satisfy relationship of $0 < k \leq 3$.

3. The optical recording medium according to claim 1, wherein the first lower dielectrics layer is made of a mixture of zinc sulfide and silicon oxide and the second lower dielectrics layer is made of silicon nitride.

4. The optical recording medium according to claim 1, wherein the first upper dielectrics layer is made of a mixture of zinc sulfide and silicon oxide and the second upper dielectrics layer is made of silicon nitride.

5. The optical recording medium according to claim 1, wherein the recording layer is a phase change recording layer.

6. The optical recording medium according to claim 5, wherein the phase change recording layer is made of a SbTe base alloy, and the reflective layer is made of a Ag base alloy.

7. The optical recording medium according to claim 6, wherein the SbTe base alloy includes Ge, Sb and Te, and the Ag base alloy includes Ag, Nd and Cu.

8. The optical recording medium according to claim 7, wherein in the phase change recording layer, a content of Ge is 2 atomic percent or more and 8 atomic percent or less, and a ratio of Sb to Te is 3.4 times or more and 4.0 times or less, and

in the reflective layer a content of Nd is 0.4

atomic percent or more and 0.7 atomic percent or less and a content of Cu is 0.6 atomic percent or more and 0.9 atomic percent or less.

9. The optical recording medium according to claim 7, wherein in the phase change recording layer, a content of Ge is 2 atomic percent or more and 8 atomic percent or less, and a ratio of Sb to Te is 4.2 times or more and 4.8 times or less, and

in the reflective layer a content of Nd is 0.4 atomic percent or more and 0.7 atomic percent or less and a content of Cu is 0.6 atomic percent or more and 0.9 atomic percent or less.

10. The optical recording medium according to claim 1, wherein a thickness of the reflective layer is 80 nm or more and 140 nm or less;

a thickness of the second lower dielectrics layer is 8 nm or more and 14 nm or less;

a thickness of the first lower dielectrics layer is 4 nm or more and 10 nm or less;

a thickness of the recording layer is 8 nm or more and 16 nm or less;

a thickness of the first upper dielectrics layer is 4 nm or more and 12 nm or less; and

a thickness of the second upper dielectrics layer is 36 nm or more and 46 nm or less.

11. The optical recording medium according to claim 1, wherein the light transmissive layer includes a light

transmissive sheet and an adhesive layer for adhering the light transmissive sheet to a substrate.

12. The optical recording medium according to claim 11, wherein the adhesive layer is made of a pressure sensitive adhesive.

13. The optical recording medium according to claim 11, wherein the adhesive layer is made of a UV-curable resin.

14. A method of manufacturing an optical recording medium that comprises at least a reflective layer, a lower dielectrics layer, a recording layer, an upper dielectrics layer and a light transmissive layer that are sequentially laminated on one main surface of a substrate,

wherein light having a wavelength in the range of 400 nm or more and 410 nm or less is focused with an optical system having a numeral aperture in the range of 0.84 or more and 0.86 or less followed by irradiating from a side of the light transmissive layer on the recording layer, and thereby an information signal is recorded and reproduced, comprising:

forming the reflective layer on one main surface of a substrate;

a first lower dielectrics layer and a second lower dielectrics layer that inhibits a material that constitutes the first lower dielectrics layer and a

material that constitutes the reflective layer from reacting, and thereby forming the lower dielectrics layer;

forming the recording layer on the lower dielectrics layer;

a first upper dielectrics layer and a second upper dielectrics layer that inhibits a material that constitutes the first upper dielectrics layer and a material that constitutes the light transmissive layer from reacting, and thereby forming the upper dielectrics layer; and

forming the light transmissive layer on the upper dielectrics layer.

15. The method of manufacturing an optical recording medium according to claim 14, wherein extinction coefficients k of materials that constitute the upper dielectrics layer and the lower dielectrics layer satisfy relationship of $0 < k \leq 3$.

16. The method of manufacturing an optical recording medium according to claim 14, wherein the first lower dielectrics layer is made of a mixture of zinc sulfide and silicon oxide and the second lower dielectrics layer is made of silicon nitride.

17. The method of manufacturing an optical recording medium according to claim 14, wherein the first upper dielectrics layer is made of a mixture of zinc sulfide and silicon oxide and the second upper dielectrics

layer is made of silicon nitride.

18. The method of manufacturing an optical recording medium according to claim 14, wherein the recording layer is a phase change recording layer.

19. The method of manufacturing an optical recording medium according to claim 18, wherein the phase change recording layer is made of a SbTe base alloy, and the reflective layer is made of a Ag base alloy.

20. The method of manufacturing an optical recording medium according to claim 19, wherein the SbTe base alloy includes Ge, Sb and Te, and the Ag base alloy includes Ag, Nd and Cu.

21. The method of manufacturing an optical recording medium according to claim 20, wherein in the phase change recording layer, a content of Ge is 2 atomic percent or more and 8 atomic percent or less, and a ratio of Sb to Te is 3.4 times or more and 4.0 times or less, and

in the reflective layer a content of Nd is 0.4 atomic percent or more and 0.7 atomic percent or less and a content of Cu is 0.6 atomic percent or more and 0.9 atomic percent or less.

22. The method of manufacturing an optical recording medium according to claim 20, wherein in the phase change recording layer, a content of Ge is 2 atomic percent or more and 8 atomic percent or less, and a ratio of Sb to Te is 4.2 times or more and 4.8 times

or less, and

in the reflective layer a content of Nd is 0.4 atomic percent or more and 0.7 atomic percent or less and a content of Cu is 0.6 atomic percent or more and 0.9 atomic percent or less.

23. The method of manufacturing an optical recording medium according to claim 14, wherein a thickness of the reflective layer is 80 nm or more and 140 nm or less;

a thickness of the second lower dielectrics layer is 8 nm or more and 14 nm or less;

a thickness of the first lower dielectrics layer is 4 nm or more and 10 nm or less;

a thickness of the recording layer is 8 nm or more and 16 nm or less;

a thickness of the first upper dielectrics layer is 4 nm or more and 12 nm or less; and

a thickness of the second upper dielectrics layer is 36 nm or more and 46 nm or less.

24. The method of manufacturing an optical recording medium according to claim 14, wherein the light transmissive layer is formed by adhering a light transmissive sheet to the upper dielectrics layer with an adhesive layer.

25. The method of manufacturing an optical recording medium according to claim 24, wherein the adhesive layer is made of a pressure sensitive adhesive.

26. The method of manufacturing an optical recording medium according to claim 24, wherein the adhesive layer is made of a UV-curable resin.

5